

sovereigns. I believe that I am perfectly correct in saying, that the brother of his Royal Highness Prince Albert, the reigning Duke of Saxe-Gotha, has ten, if not twelve, noble palaces in his duchy, many of which were visited by Queen Victoria, during her tour on the continent; whilst it would be easy to name some of our nobility who possess, each, six and eight princely mansions; and leaving Windsor Castle out of the question, no royal residence in this country can vie in splendour or extent with Blenheim, Chatsworth, Castle Howard, or Dalkeith.

If a vote in Parliament authorizing the expenditure of money on Buckingham Palace had not taken place, it is probable that no discussion would have arisen, for the present at least, respecting the removal of the royal residence; for her Majesty, with her characteristic disregard of personal convenience, and that consideration always displayed towards her subjects, would be the last to express a wish for the change of residence, if it involved a great sacrifice on the part of her people.

But the question now is, whether her Majesty is to be worse lodged than many of her subjects, and to be obliged to continue, at the risk of health, in an acknowledged inconvenient building.

"Cabin'd, cribb'd, confin'd,"

when a word from a generous nation would give to their Queen an opportunity of possessing at least as much comfort as at the command of her nobles; and it should always be borne in mind, and it is an important fact, lost sight of by some writers and distorted by others, that by the recent arrangements respecting the management of the Crown lands, the English nation has been a gainer to the amount of several millions, in the generous surrender of all their hereditary possessions by the sovereigns of this country. Shall it then be said that England cannot afford, or that she will grudge, to build a palace worthy of herself, of her age, and of her Queen? But no great sacrifice is required; for by this scheme which has been submitted to the public, it will be seen that the funds necessary for the accomplishment of this purpose may be looked upon as provided, by not being expended on objects beyond the reach of cure. Having occupied your space thus far, I propose to resume the subject hereafter, and remain, &c.

GEORGE RUSSELL FRENCH.

Sept. 18, 1846.

AWARDS OF OFFICIAL REFEREES.

PROJECTING EAVES.

Messrs. KING of Islington, having formed the eaves and cornice of a certain dwelling-house in Canonbury-park, of wood, the district surveyor, Mr. Edwards, lodged the ordinary information. The house is one of a series of detached houses, each 15 feet from the wall which separates the gardens.

Mr. Perkins, on the part of the builders, stated "that he considered that the said building was to be deemed to be an insulated building within the meaning of the Act, by reason of its being at the distance of 25 feet from the public road, and 30 feet from the building nearest thereto, notwithstanding that such first mentioned building is at a distance of 15 feet only from ground not in the same possession or occupation therewith; and stated also, that he was under the impression that, inasmuch as by the leases of the premises in question, and the adjoining premises granted or to be granted by the ground landlord to the owners thereof, it is covenanted that a clear space of at the least 30 feet shall always be maintained between house and house, that the said building was to be deemed to be an insulated building."

The referees determined "that inasmuch as the building in question is distant from ground in another occupation 15 feet only, and not 30 feet as by the said Act required, it is not to be deemed an insulated building within the meaning of the said Act; and that inasmuch as the eaves cornice in question has not been built of the same materials as are by the said Act directed to be used for building the external walls to which such cornice belongs, or of such other proper and sufficient materials as the official referees have approved and permitted, the said eaves cornice is contrary to the said Act; but considering the comparatively insu-

lated character of the building, we do hereby certify in pursuance of the said Act, and of the application of Mr. William Perkins for the approval of the materials of the said eaves, that so long as such building shall remain so distant 30 feet from any other building, we approve and permit the said eaves cornice referred to in the said application."

"The enactment as regards projecting eaves of detached houses has caused much trouble and expense to builders, and for the most part, without the slightest advantage to the public. Wooden shop fronts may be fixed to adjoining houses, provided they are separated by a few inches of incombustible material, yet the eaves of the roof of a house standing alone, and only a few inches less than thirty feet in any one part, from ground not in the same occupation, must be made fire-proof all round. To comply with this requirement, slates have been fixed up with screws or nails to the feet of the rafters, in some cases in a very insecure manner. When the nails are corroded and give way, we shall probably hear of accidents."

RUINOUS BUILDINGS.

The district surveyor, in pursuance of an application to the official referees, surveyed the premises No. 103, St. John-street, Clerkenwell, and certified that they were dangerous to passengers, and ought to be pulled down or repaired forthwith.

The lessee and occupier of the building having obtained her surveyor's opinion, to the effect that it was not so far out of repair or ruinous as to be in danger of falling, and that the safety of passengers was not endangered thereby, appealed to the referees.

The referees determined "that the building in question, that is to say, the house, No. 103, St. John-street, Clerkenwell, is ruinous and dangerous, within the meaning of the Metropolitan Buildings Act, and ought to be forthwith hoarded in and shored up, and that in order to make the building secure, it is requisite to take out the external walls on the two fronts to Aylesbury-street and St. John-street, throughout the first or basement story, and to rebuild the same with bricks, or with stone in cement, and to build, in like manner, proper walls throughout the second or ground-floor story, or to put proper and sufficient story-posts to support the walls above, or otherwise in default of such work being done, to pull down the said building."

In another case, on an appeal against the certificate of the surveyor of the western district of the city of London, in respect of the front wall of two houses, 25 and 26, Field-lane, Holborn, the referees determined that it was not ruinous, and that the costs should be paid by the surveyor.

SCIENCE IN SOUTHAMPTON.

THE ARTESIAN WELL.

THE successful completion of the Artesian well is a matter of considerable moment to Southampton. No opportunity therefore, to obtain information from scientific men during the recent meeting of the British Association, has been lost. We referred in our last number to some of the statements made.

A joint deputation of the geological and mechanical sections visited the works at the request of the corporation to form an opinion as to the probable result of resuming the boring at the bottom of the shaft. They examined the strata and the engineer, and promised to make a special report upon the subject.

Soon after the deputation had left, Dr. Buckland, who in July, 1844, had reported on the well, arrived, and after examining into the matter, made, according to the *Hampshire Advertiser* (which by the way, contains a full report of all the proceedings), the following remarks:—"The water for the supply of the well at Grenelle comes from perhaps eighty miles off, but there was no fault or dislocation between the source and the delivery. That was not the case as between Southampton and the Isle of Wight, where a dislocation existed; the same might be said as regarded Winchester, where there was a break between St. Giles's and St. Catherine's Hill. They must, therefore, in order to form a judgment of the water they might expect here, and as to what height it would rise, go to Peters-

field, where he believed there was no fracture (though he was aware of the fault said to exist at Portdown), but if it should turn out that there was, then to Wilton (near Salisbury), and make the examination there. It may be that there was plenty of water under the very spot on which they were standing, which was only finding its way out at those places (Otterbourne and Petersfield, as explained in the pamphlet before alluded to). He was sorry, however, to mention that Mr. Gatehouse, at Chichester, had bored 1,050 feet down, of which about fifty were in the green sand (into which they wanted to penetrate at Southampton), having but about 97 feet of plastic clay above the chalk, while ours was 480. Mr. Gatehouse, in his note to him (Dr. Buckland) says that having got this depth in the green sand, he at first got 78 gallons an hour; but it was now but 26 gallons an hour, and had a most intolerable odour (sulphuretted hydrogen). Now, how far that quantity per hour, with the odour of rotten eggs, would satisfy the people of Southampton, he would leave to their judgment—(laughter). He, however, had not gone to the gault, and therefore he (Dr. Buckland) would go on here at Southampton for the chance of getting water—he would go on, and if possible get to the bottom of the lower green sand. The tool or machine of M. Fauvelle promised to execute the work of boring so cheaply, that it would be most advisable to proceed with it."

The Mayor handed a letter to the doctor from Mr. R. Beart, of Godmanchester, which claimed for that party the invention of a boring tool similar in operation to that of M. Fauvelle. He had bored with it, in 1843, a well 65 feet deep and one in diameter, through a solid bed of clay, containing many large stones, some of which passed up the pipes of from four to five inches long, and two to three inches thick: the diameter of the pipe within being but 3½ inches, and 70 feet long; they were worked by four men, and descended from three to four feet per hour. He had taken out a patent for it.

Dr. Buckland said, if M. Fauvelle's instrument was the invention of an Englishman, of course he would reap the benefit of it. But with respect to this invention of M. Fauvelle, when he first saw it, it excited his astonishment, and even indignation, that it had not been found out before. He much regretted that they had not run out galleries, as he had suggested in his report on the well.

Mr. Docwra said he had acted upon that plan at Chesham, for the New River Company, and had obtained, at a depth of from 109 to 145 feet, with two galleries of 30 feet long, from 400 to 500 gallons per minute. He had proposed to go 80 feet in the chalk here, and strike galleries, and they would have had plenty of water for the whole town.

CHINESE BORING FOR ARTESIAN WELLS.

In connection with this subject, Mr. Vigolles read a paper at one of the meetings on Chinese boring, as practised on the continent, and as applicable to the boring of artesian wells and of the ventilation of mines. The ordinary method of boring is to screw together rods of one inch or more in diameter, adding the lengths (which are of six or eight feet) as the bore-hole is deepened. On the bottom of these rods the various cutting tools are screwed; and it is the tedious operation of lifting, lowering, screwing, and unscrewing these rods, and the liability of the cutting tools to get jammed, and the twisting, bending, and breaking of the rods, which constitute nine-tenths of the labour, expense, and delay of the old mode. A method of boring is employed on various parts of the continent, and particularly at the Saarbruck coal-mine, which is called the percussion or Chinese method. This process has been long practised in China, where they have thus bored to the depth of 1,000 feet and more. Instead of the tedious and expensive mode of boring with rods, one heavy bar of cast-iron, from six to ten feet in length, and of proportionate diameter—four to six inches—is furnished at the lower end with a cutting tool, combined with a suction-pipe, and is suspended from one end of a rope, passing over a large pulley fixed over the bore-hole. The other end of the rope is wound round a windlass, and the whole is worked like winding up and lowering down a bucket in an ordinary well: a contrivance is attached to let the weighted